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ABSTRACT

According to 1995 data collected by the National Center for Educational Statistics, first-year students at public community colleges were twice as likely to be enrolled in a remedial education course than their public four-year counterparts. Ninety-five percent of community colleges offer remedial instruction, yet critics of the community college challenge the legitimacy of an institution of higher education that provides less than postsecondary-level instruction. Proponents of remedial instruction in the community college argue that continued or increased neglect of remedial education could lead to significant economic troubles for the United States. According to research conducted at Sinclair Community College in Dayton, Ohio, cohorts of developmental students were found to be more likely to remain in college than students who needed no remediation. McCabe (2000) found that remediated students pass 88% of college level English classes and 82% of mathematics classes. This paper argues that the first aspect of retention of remedial students that must be considered is the approach to teaching and learning that yields high student persistence. A second key feature appears to be mandatory assessment and placement of remedial students. Active institutional outreach is the third component of a complete developmental/remedial education program. (Contains 28 references.) (NB)

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Retaining Underprepared Students Enrolled in Remedial Courses at the Community College

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Abstract

The American Community College admits hundreds of thousands of underprepared students each year. Given changing demographics and economy structure, the number of underprepared students seeking higher education will increase in the coming decades. Students who complete remedial programs persist at the community college and perform as well or better than academically prepared students in college-level classes. This paper explores programs and practices that increase underprepared student retention and keep underprepared students persisting towards their academic and career goals once enrolled at the community college

Introduction

One of the most contentious facets of higher education is developmental/remedial education (Grubb & Worthen, 1999). Developmental/remedial educatior has been defined by the National Center for Educational Statistics as "courses in reading, writing, or mathematics for college students lacking those skills necessary to perform college-level work at the level required by the institution" (U.S. Department of Education, 1996, ¶ 1). Students needing such remediation are often referred to as "underprepared students" in the literature. A distinction should be made between the similar terms "underprepared" and "at-risk" students. According to Roueche and Roueche (1993), the term at-risk pertains to students whose academic, social, and economic conditions guarantee failure if there are no appropriate interventions. Underprepared students represent the academic subset of at-risk characteristics (Roueche & Roueche, 1993).

McCabe (2000) reports that over one million students not prepared for college-level study enter higher education every year: this represents forty-two percent of first-time college goers. More than fifty percent of these students are women and about sixty percent of them are twenty-four years of age or younger. About one third of developmental college students are from a minority group and about one half are financially independent but making less than $20,000 a year (Batzer, 1997).

While prestigious institutions often tuck remediated instruction away in tutoring centers (Grubb & Worthen, 1999), the open door American Community College acknowledges and receives many of these underprepared students. According to 1995 data collected by the National Center for Educational Statistics (1998), first-year students at public community colleges were twice as likely to be enrolled in a remedial education course than their public four-

year counterparts. It is not surprising then that ninety-five percent of community colleges offer remedial instruction (McCabe, 2000).

But this is not to say that community colleges necessarily celebrate their role as remedial education providers. Despite the fact that remedial education programs were created to both protect the integrity of college-level courses and to prepare students for those courses, critics of the community college challenge the legitimacy of an institution of higher education that provides less than post-secondary level instruction (McCabe, 2000). Legislators often rail against community colleges for taking public money and spending it on delivery of instruction that has already been provided to students in public high schools (McCabe, 2000). Even community colleges themselves frequently designate the developmental/remedial mission as a lesser priority and subsequently assign ill-prepared and/or part-time instructors to developmental sections (McCabe, 2000).

Significance of the Problem

Proponents of remedial instruction in the community college argue that continued or increased neglect of remedial education in higher education could lead to significant economic troubles for the United States. In his 2000 monograph No One To Waste, Robert McCabe identifies three major causes for concern for public decision makers and community college leaders.

First, McCabe (2000) argues that today's society and the society of the future will demand highly skilled and technical workers who require instruction beyond high school. The rapid transition from a goods based economy with plenty of jobs for unskilled workers to our present economy is illustrated by the fact that sixty percent of American jobs in the 1950s were filled by unskilled laborers: today, that percentage is fifteen. Therefore, jobs that were once

available to those without college-level education simply do not or will not exist in the twenty-first century. Of the remaining unskilled jobs, Roueche and Roueche (1993) contend that they are dead-end jobs that do not provide a route to the middle-class as they may have done in the past. A new population of students who historically would not have gone to college will therefore come to the community college to attain the education and skills needed for meaningful employment. McCabe argues that these new students will be academically unready for college-level work.

McCabe's (2000) second argument for strengthening remedial instruction in community colleges is tied to the increasing diversity of the United States. McCabe states that immigrants and Hispanics will account for most of the population growth in the United States over the next fifty years and that these populations are disproportionately underprepared for the technical and skilled work available in the United States.

Finally, McCabe (2000) highlights the "gray wave" (p. 10), the overwhelming number of Americans born between 1945 and 1964 who will leave the workforce in the coming decades. McCabe argues that this massive onslaught of retirements will result in a dearth of American workers who are both available to work and who have the requisite education and skills to work.

Even given these arguments, critics often decry the cost of remediating a college student. Some claim that certain students are just "not college material" (Grubb & Worthen, 1999, p. 173) and that the public should not waste money on students who have not demonstrated that they will succeed (Roueche & Roueche, 1996). To counter these contentions, McCabe and Day (1998) report that students who complete remedial programs are as successful in college-level work as those who begin academically prepared. Moreover, McCabe and Day point out that most remedial students complete remediation in one academic year. Surprisingly, only one percent of

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all monies spent on higher education in the United States are spent on remedial education (McCabe, 2000). In Illinois, only 6.5% of direct faculty salary costs in the community colleges are associated with remedial education (Ignash, 1997).

The community college is the major supplier of remedial instruction in the public higher education sector. McCabe and Day (1998) believe that this is appropriate. They maintain that the community college has a history of serving underprepared students and that most community colleges already have remedial programs in place. Moreover, the overwhelming majority of faculty and leadership at community colleges possess the values and attitudes required for successful remediation of adult students. Finally, McCabe and Day argue that community colleges are physically located near high schools and in communities where the effect of an underprepared workforce could be felt most acutely. The local community colleges are uniquely situated to diagnose the specific problems of their localities and respond to them. For these reasons, McCabe and Day (1998) contend that the community college is the proper place to offer remedial instruction in higher education.

Research Questions

If we assume that the proponents of remedial education in higher education are correct when they argue that remedial instruction is necessary, effective, economical, and belongs in the community college, community college leaders and public policy makers must then understand how to keep underprepared students persisting towards their academic goals once enrolled at the community college. Indeed, a great deal of research has been done on retention of college students but the most well known research in the area has not specifically focused on the underprepared student.

For instance, Vince Tinto is well known for his theoretical model of college retention constructed from his research of the four-year residential college. He proposes that student persistence is directly influenced by institutional and goal commitment. These in turn are influenced by external commitments as well as level of academic and social integration (Tinto, 1993). When writing about the community college, Tinto continues to focus on factors that influence social and academic experiences, individual goals and commitments, and availability of financial resources (Tinto, 1996). Tinto's model has been shown to be applicable to the two-year college (Halpin, 1990; Napoli & Wortman, 1998).

While Tinto's work has gained acceptance and notoriety, it does not speak directly to the essence of the underprepared student's most basic concern: that he/she is not ready for college-level work. Moore and Carpenter (1985) bemoan the research focus on the psychological characteristics of underprepared students. They feel that psychological characteristics such as poor self-concept and unclear goals are "vague and speculative dimensions" which defy precise measurement (p. 96). They favor study and action on concrete characteristics such as low standardized test scores, low socioeconomic background, and race. They also recommend that researchers concentrate their efforts on helping institutions provide to their underprepared students outstanding instructors who can deliver quality education despite the many and varied characteristics students bring to the classroom. Intriguingly, Halpin's (1990) research indicated that the most transferable components of Tinto's model to the community college were the academic integration components.

Therefore, this literature search seeks to answer specific research questions to inform community college leaders and policy makers about retention of underprepared students at the two-year college. These questions are meant to focus on the underprepared and not the at-risk

student. These questions are also designed to avoid looking at characteristics studied by Tinto in favor of examining and stressing questions about the academic environment. Among these questions are: Do remedial programs enable underprepared students to persist at the community college? If so, what programs and activities allow underprepared students to persist in the community college and why? What are the characteristics of these programs that enable student success? What are some examples of best practices?

Literature Review

Remedial programs have been shown to enable underprepared students to persist towards their goals at the two-year college. Batzer (1997) found that underprepared students who completed remedial coursework at Ivy Tech State College, a two-year technical college in Indiana, achieved greater academic success than underprepared students who did not complete remedial coursework. She also showed that remediated students persisted longer towards their academic goals than their non-remediated counterparts. Schoenecker, Bollman, and Evens (1996) have reported similar findings for twenty-one public community colleges in Minnesota. Specifically, they found that students who had completed a developmental course sequence persisted at their colleges at a higher rate than underprepared students who were not remediated. Moreover, Schoenecker et al. showed that the successfully remediated students performed as well or better than students who had started college academically prepared. Further evidence of the positive relationship between remedial education and retention is provided by research conducted at Sinclair Community College in Dayton, Ohio. Cohorts of developmental students were found to be more likely to remain in college than students who needed no remediation at all. The Sinclair remedial students were also more likely to complete college-level work in English and math within three years of enrolling than students who did not require remediation

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(Easterling, Patten, & Krile, 1998). These three independent studies confirm McCabe's (2000) assertion that successfully remediated students perform well in standard college work. Indeed, McCabe's (2000) own research reveals that remediated students pass eighty-eight percent of college-level English classes and eighty-two percent of mathematics classes.

It has been established that students who complete developmental programs persist and succeed at the community college. Therefore, it is in the interest of researchers to uncover what keeps remedial students persisting while still enrolled in remedial programs. It is of reduced value to society and to individuals if only a small number of students who begin developmental programs complete them. Several key components of exemplary developmental programs will be explored at present. Then, a number of exemplary programs shall be described in their totality.

The first aspect of retention to be considered is the approach to teaching and learning that yields high student persistence in developmental classrooms in the community college. McMillan, Parke, and Lanning (1997) have identified three learning theories employed in remedial classrooms. The first is the humanistic approach where students are responsible for their own learning and the role of the teacher is a facilitator to that learning. McMillan et al. report that developmental students are often not ready for self-directed learning and as a consequence, the humanistic approach is the least popular in developmental programs. A second approach, programmed instruction, draws upon behaviorist theories of learning. These programs are characterized by self-paced learning, computer assisted instruction, and use of open entry-open exit format. These programs are inexpensive to operate because fewer faculty and staff are required. On the other end of the spectrum, McMillan et al. describe developmental theories of learning. In this more costly and time intensive approach, instructors are intimately involved

with helping students move from one level of knowledge to another. Classrooms employing developmental theories of learning are characterized by their supportive, encouraging, and challenging atmospheres.

Miglietti and Strange (2002) have confirmed the utility of developmental theory with underprepared students in a community college setting. They found that adult underprepared students in learner-centered classrooms achieved higher grades than similar students in teacher-centered classrooms. Miglietti and Strange define learner-centered classrooms as ones that are characterized by personalized instruction, use of students' personal experiences to understand course material, and climate building.

Developmental theory is championed by Laura Rendón (n.d.). In her research, Rendón has found that nontraditional students in the community college have persisted when they have felt "validated" in the classroom. Rendón writes "validation occurs when faculty and staff let students know they are capable learners, are valued by the institution, and play an important part in their own learning" (n.d.). Among the hallmarks of a validating classroom are: faculty who partner with students to create powerful learning environments, the appreciation of students' life experiences as a basis for learning and knowledge, and emphasis on active learning techniques such as group work, collaboration, and field trips.

Grubb (1999) also favors using developmental theory in remedial classrooms instead of the "skills and drills" methodology associated with behaviorist theory. Specifically, Grubb is a proponent of learning communities. In this approach, a group of students take two or more courses at the same time while their instructors coordinate their lessons. While learning communities may take many forms, one format is to align a content course with a remedial course or courses that are considered prerequisite information for the content course. An

example is linking a remedial math course with a chemistry course. Grubb cites literature that demonstrates that students persist at a higher rate in learning communities than those who participate in regular sections. Just as importantly, Grubb also points to literature that shows that developmental students achieve higher levels of academic success in learning communities than their underprepared counterparts in conventional sections.

Illinois Central College's (ICC) exemplary teaching and learning efforts are featured in John and Suanne Roueche's Between a Rock and a Hard Place (1993). ICC's Quality Undergraduate Education for Student Transfers (QUEST) program prescribes the majority of the forty-six hours of general education courses for the participating underprepared students. The QUEST program emphasizes and supports active modes of teaching and learning. In fact, the QUEST program's literature states that a "community of learning" is created in the program; this is manifested by the collegial nature of the program and the sense of belonging that participating faculty and students report. Many courses are interdisciplinary and team-taught. Students regularly participate in small group work, study groups, and independent study.

A second key feature for developmental programs appears to be mandatory assessment and placement of remedial students. While it is not a revolutionary disclosure that community colleges cannot provide suitable developmental programs to students if they do not know which students need to be remediated, the concept of required testing and placement is in conflict with the history of the open access college.

During the 1960s, many colleges operated under the assumption that students knew their own strengths and weaknesses and that students would choose courses and programs accordingly. This approach has been termed the students' "right to fail" (McCabe, 2000, p. 43). However, this approach yielded disastrous results. In 1976, K. Patricia Cross determined that

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fewer than ten percent of students who needed remedial education but who did not enroll in remedial classes persisted at the community college (McCabe, 2000). After Miami-Dade Community College demonstrated that required mandatory assessment and placement resulted in higher completion and retention rates, many community colleges followed suit and implemented mandatory assessment and placement during the 1970s. While critics argue that mandatory assessment and placement lowers a student's self-esteem and forces them into unwanted and expensive classes, proponents maintain that if the purpose of the developmental coursework is explained to students, students will recognize the importance of the remediation in reaching their educational and career goals.

Amey and Long (1998) have provided a more recent validation of the success of mandatory assessment and placement for underprepared students in the community college. They have shown that underprepared degree, certificate, and transfer students who took the ASSET Basic Skills inventory and who subsequently took a remedial course in the next semester persisted at the community college longer and more successfully than similar students who did not opt to enroll in a developmental course.

South Suburban College in Illinois employs a "structured open access" approach to mandatory assessment and placing; this approach uses a "caring but intrusive system of facilitating student achievement" (Fonte, 1997, p. 44). All certificate and degree-seeking students are blocked from registering at the college if they have not completed the ASSET placement test. A unique aspect of South Suburban's approach is its treatment of students who indicate that they are only taking several courses at the college. If this type of self-identified student attempts to register for a seventh credit hour, the registration process is blocked. South Suburban's philosophy is that this type of student has moved beyond course experimentation and

has moved towards a definite educational objective. Therefore, this type of student should be assessed and placed correctly. This prevents students from slipping through the cracks at South Suburban (Fonte, 1997).

Institutional outreach strategies are a third discrete component of successful developmental education programs with high retention rates. Rendon (n.d) has linked external collaboration to higher retention rates at the community college. She contends that organizations such as K-12 schools, four-year colleges and universities, business and industry, and community-based organizations are united by a common purpose: the objective of assisting students in attaining their educational goals and becoming responsible citizens (Rendon, n.d.)

One example of institutional outreach is structuring a relationship between community colleges and secondary schools. The complaint that many high school graduates are incapable of doing college-level work can be explained by the fact that there is often a sizable gap between the requirements needed for high school graduation and college admission. One way of overcoming this chasm is promoting stronger collaboration between high schools and their local community college.

One such successful partnership has been established between Owens Community College and Findlay High School in Ohio. Both Findlay and the Ohio Board of Regents were interested in determining high school students' strengths and weaknesses in writing. They hoped to intervene to provide appropriate remediation while the students were still in high school. Owens Community College partnered with Findlay and articulated the expectations for college writing. An open, positive line of communication was established between Findlay and Owens so that continual communication of standards and expectations could be shared. Findlay and Owens' relationship has continued and grown: they have collaborated to pilot a full-process

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writing assignment for each high school grade level, portfolio projects, and training modules for participating faculty (Richey, Mathern, O'Shea, & Pierce, 1997).

Appropriate teaching and learning techniques, mandatory assessment and placement, and active institutional outreach are but three components of a complete developmental/remedial education program that keeps students persisting in the community college. McCabe and Day (1998) have identified a number of exemplary developmental programs. Two of these outstanding programs shall be considered briefly in order to both describe how the components highlighted in this paper are manifested as well as to convey a number of other important aspects and characteristics of excellent programs.

Klicka (1998) has described the Developmental Education Program at Bucks County Community College (BCCC) in the small town of Newton, Pennsylvania, near Philadelphia. Developmental education is organized into its own academic unit called Developmental Education Services (DES). Klicka writes that this centralization increases DES's visibility on campus and guarantees that the program's educational philosophy is continuous throughout the segments of the program. DES implements the components described in this paper by 1) providing a validating classroom by requiring that all remedial instructors are counselors, 2) mandating locally produced assessment tests when students have accrued sixteen credit hours, and 3) reaching out to county high schools, civic organizations, and businesses. Tutoring is provided to students by trained professionals, including a Director, two academic supervisors, and three salaried instructional assistants, in their Tutoring Center. Klicka also writes that an important part of DES's success is that they use institutional effectiveness data collected by the BCCC's Institutional Research Department to evaluate and make adjustments to the program.

DES documents that program completers do as well as non-developmental students in college-level work and that the cost of remediating BCCC students was $107 per credit hour in 1997-98.

The successful developmental education program at Sandhills Community College (SCC) in south-central North Carolina is described by Adams and Huneycutt (1998). SCC serves the relatively wealthy, educated, and predominately Caucasian Moore County as well as the relatively poor, undereducated, and majority Black Hoke County. SCC's attitude towards developmental education is one of support and this attitude permeates all of the characteristics of the program. For instance, learning communities are a very common mode of instruction in the program. While SCC requires the ASSET placement test and mandates course placement based on its results, developmental specialists carefully explain the results of the ASSET test and their impact on college placement to many developmental students. Adams and Huneycutt do not describe an outreach program, but like BCCC, SCC offers tutoring support through supplemental instruction and actively employs self-evaluation to monitor and improve programs. Also like BCCC, SCC's developmental program is centralized into the Academic Support Services department. SCC is proud of the organization of their unit: the developmental specialists of the Academic Support Services department are advised by deans and chairs and others, but the specialists ultimately have responsibility for the advising, learning communities, developmental courses, and retention efforts of the department. Like BCCC, the cost of remediating a student at SCC is approximately $100 per credit hour in fall 1996.

Summary and Conclusions

It has been demonstrated in this paper that the community college will continue to be the recipient of hundreds of thousands of students who require remedial education ever year. Proponents of developmental education contend that the community college is the best choice as

the provider of remedial instruction in higher education. With the changing demographics of the United States, the number of developmental students will likely increase. The changing economy of the United States will force community colleges in every setting, urban, suburban, and rural, to evaluate the effectiveness of their developmental education programs and courses.

This paper has also established that remedial education programs can be economical and effective. For a reasonable expenditure of public funds, data show that students who have completed sequences in developmental programs perform as well or better than college ready students in college-level classes. It is then of societal and individual interest to construct developmental courses and programs that keep students persisting towards their ultimate educational and career goals. Exemplary remedial education programs are characterized by validating environments and classrooms, by mandatory assessment and placement, and by institutional outreach and collaboration.

Given the projected increased need for remedial instruction in higher education, community colleges must be proactive in demonstrating the worth of remediation. Public community colleges must also justify the merit of the developmental programs to a public that demands accountability and to politicians who answer to the public.

Policy and Practice Implications

Conflict has existed and will continue to exist on this front. For instance, in 1998, New York City Mayor Rudolf Giuliani publicly criticized the City University of New York's (CUNY) community colleges because only 14% of incoming first year students passed all three Freshman Skills Assessment Tests. Giuliani argued that this statistic demonstrated that there were no admissions standards in place for CUNY community colleges. In response to Giuliani's

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observations, the CUNY Board of Trustees recommended that students be restricted to one year of remediation at CUNY community colleges (Sussman, 1998).

The CUNY Board of Trustees and Mayor Giuliani appear to operate from a classical model of higher education that they themselves may have enjoyed: academically prepared students moving directly from secondary preparation into prestigious college programs and graduating four years later. These governors seem to have forgotten both how the diverse the students seeking college admission are as well as the varied pathways they have traveled to college in the twenty-first century, particularly in the community college and particularly in New York City. They seem to forget that the community college is the institution of choice for many minority and economically disadvantaged students (Cohen & Brawer, 1996) and that both groups are disproportionably underprepared for college-level work (McCabe, 2000). They seem to forget that many community college students study part-time (Cohen & Brawer, 1996) and that limiting remediation to one year may instead limit students' chances for success. Instead of drawing on educational research to recommend meaningful programs for underprepared students, Giuliani and the Board of Trustees chose a political solution.

Another troubling example of politics and remediation is demonstrated by the Texas Academic Skills Program (TASP) debacle. Since the late 1980s, students in public higher education in Texas have been required to take the TASP test before completing nine credit hours and pass all three portions of the TASP before receiving the associates degree or progressing beyond sixty credit hours. Remediation is required for students failing any portion of the TASP. The motivation for the substantial TASP legislation is to increase retention and graduation rates in Texas public institutions. But by the mid-1990s, it was unclear whether the large expenditure in taxpayer money had indeed increased either retention or graduation rates. In 1996, hired

consultant Hunter Boylan reported that the program was floundering because the remediation programs were of poor quality. He stated that Texas schools were more concerned with complying with the law than with remediation outcomes (Cook, 1998).

This illustrates a second danger when municipal politics collide with remediation efforts in higher education. In this case, it seems that the Texas state government initiated a well-meaning developmental program but that the state colleges and universities either did not agree with it or did not have the capacity to successfully execute it. In either case, this example as well as the CUNY example highlights the critical role that higher education and community colleges must play in this arena. That is, the experienced community college must justify the merit of the developmental programs to the public. As importantly, the community college must lead the way in identifying and practicing the methodologies that keep remedial students in school and progressing towards their academic and career goals.

Specifically, community college leaders, public policy decision makers, and community college researchers should contemplate the following when considering the retention of underprepared students at the community college:

1. Recognize that Tinto's model of college retention describes at-risk, not underprepared, students. Researchers should seek to provide a comparable model for underprepared students. Practioners should carefully choose pertinent information from the literature before making academic decisions in remedial programs for underprepared students.

2. Employ institutional research to document and study the success of remediation programs. Outcomes should be used to make amendments to the programs. This accountability in turn will advance meaningful dialog between the community college, the public, and legislators.

3. Employ the developmental theory of learning in remedial classrooms to foster validating, supportive, and active classrooms. Learning communities, group work, and collaboration should be the hallmarks of remedial classrooms.

4. Mandate assessment and placement to increase the chances of successful remediation and completion of college-level work.

5. Seek partnerships with other educational institutions as well as private business and industry to promote seamless transitions between remedial instruction at the community college and high schools, senior colleges, and employers.

6. Provide adequate resources, training, support, and organization to the remedial instruction units of community colleges. The community college must welcome its mission as a provider of developmental education since it is well suited for this role.

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